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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/868,972	06/04/97	GUPTA	A 2860-065

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EXAMINER

PHAM, B

ART UNIT

PAPER NUMBER

2731

DATE MAILED: 04/14/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/868,972

Applicant(s)
AMIT GUPTA, RAPHAEL ROM

Examiner
Brenda Pham

Group Art Unit
2731



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-30 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-30 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. Claims 1-30 have been examined.

Specification

2. The disclosure is objected to because of the following informalities:
 - References 205, 210, 220 of Figure 2 are not specified in specification.
 - References 900, 910, 920, 930, 940 of figure 9 are not specified in specification.
 - References 1000, 1010 and 1020 of figure 10 are not specified in specification.
 - References 1220, 1230, 1240, 1210, 1250, 1260, 1270 of figure 12 are not specified in specification.
 - References 2010, 2000 of figure 20 are not specified in specification.
 - Figure 16 is not specified in specification.
 - Figure 8B on page 24 line 5 should be corrected to--Figure 11--
 - On page 16 line 14, "190" should be corrected to --390--
 - On page 27 line 15, "1440" should be corrected to --1430--
 - On page 29 line 21, "1700" should be corrected to --1800--
 - On page 29 line 23, "1710" should be corrected to --1810--
 - On page 29 line 24, "1720" should be corrected to --1820--
 - On page 30 line 2, "1730" should be corrected to --1830--
 - In the brief description of the drawing section, references to "figure 21 and 22" should be changed to "Figure 21A and 21B" respectively since the drawings do not contain figure 22.

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Drawings

3. The drawings are objected to because all blocks need to be labeled with descriptive legends. Correction is required.

- Reference 1350 on page 26 line 23 is not in drawing.
- Reference 200 on page 11 line 25 is not specified in drawing.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 27-30 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

- There is no disclosure teaching a method of transferring the computer program product comprising the step of transmitting instructions from memory medium to a destination over a communication interface as recited in claims 27-30. Note that a computer program product as recited in claims 23-26 comprises a memory medium, and thus, it is not clear how such a memory medium can be transferred over a communication interface.

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Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 5 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- The meaning of the terminologies “alive”, “refresh” and “on less than all “ in claim 4, line 3 and line 4, respectively, and in claim 5, lines 2 and 3 are undeterminable.

- The meaning of the terminologies “user specified policy” in claim 20 is undeterminable.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1,2,3,6,8,18,19 are rejected under 35U.S.C. 102(e) as being anticipated by

Dieudonne (U.S. Pat. No. 5,793,766).

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- Consider claim 1 **Dieudonne** discloses (see Fig. 4 and Fig. 6) a switching node, comprising: a switching matrix (AM), and a controller (CU) to control switching matrix, controller configured to set up at least one group of virtual circuits to respective one or more destinations as a virtual circuit bunch (see FIG. 4, FIG. 6)

- Consider claim 2, **Dieudonne et al** discloses the switching node of claim 1 in which switching node is an ATM switch (see col. 2, line 16)

- Consider claim 6 and 7, **Dieudonne** discloses the switching node of claim 1 in which controller transfer digital information from a source to a virtual circuits of a virtual circuit bunch (see Fig.4,6 and col. 1, line 16-20).

- Consider claim 8, **Dieudonne** discloses the switching node of claim 1 in which the virtual circuits of a virtual circuit bunch going to a single destination may be routed over different paths (see Fig.1).

- Consider claim 18 and 19, **Dieudonne** discloses a method of assigning a packet to a virtual circuit of a virtual circuit bunch (see col. 1, line 15-20)

9. Claims 10, 21 and 22 are rejected under 35U.S.C. 102(e) as being anticipated by **Suzuki** (U.S. Pat. No. 4,884,263)

- Consider claim 10, **Suzuki** discloses a computer apparatus for connection to a switching node comprising (see Fig. 1&4):

- a. a bus;
- b. a input device, connected to a bus (5);

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c. a communications interface connected to bus (52);

d. a processor (50) connected to bus. A processor configured to receive an input from a user over an input device and to generate a single request to switching node to establish a virtual circuits to a respective destination as a virtual circuit bunch (see col. 4, line 25-65).

- Consider claim 21, **Suzuki** discloses a system for the transmission of digital communications, comprising (see Fig. 1): a user communication devices (10,11,12); a partially interconnected switching nodes (14,15,16), each node serviced by a node controller (see Fig. 5). Suzuki further discloses that a node controller is configured to set up a group of virtual circuits to respective destination as a virtual circuit bunch (see col. 2, line 25-32)

- Consider claim 22, **Suzuki** discloses "The system of claim 21 in which a virtual circuit from a user at one node is connected to a user at a destination node using a virtual circuit from virtual circuit bunch (see figure 1, col. 3 line 10-33).

10. Claims 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by **Hiller et al** (U.S. Pat. No. 5,345,445).

- Consider claim 11, **Hiller et al** discloses a method of allocating virtual circuits, comprising the step of establishing a virtual circuit from a node in response to a request. (see Fig.1 and Fig. 15 element 1212).

- Consider claim 12, **Hiller et al** further discloses the step of establishing a virtual circuit from a node includes setting up switching table when the node has acknowledged the request. (see (Fig. 16)

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- Consider claim 13, Hiller et al further discloses the method of request a destination. (see Fig. 15 element 1202)

- Consider claim 14, **Hiller et al** further discloses the method of request a virtual circuit. (see Fig.16 element 1320)

- Consider claim 16, **Hiller et al** further discloses the step of establishing an end to end virtual circuit using virtual circuit bunch. (see Fig. 15 and 16)

- Consider claim 17, **Fisk** discloses a method of allocating virtual circuits in a switching system, comprising the steps of (see col. 5, line 8-10, line 35-55 and Fig. 6):

- a. identifying virtual circuits at a node going to a common destination node;
- b. aggregating those virtual circuits into a virtual circuit bunch.

Claim Rejections - 35 U.S.C. § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Dieudonne et al** (5,793,766) in view of **Hiller et al** (U.S. Pat. No. 5,345,445)

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- Consider claim 1 **Dieudonne** discloses (see Fig. 4 and Fig. 6) a switching node, comprising: a switching matrix (AM), and a controller (CU) to control switching matrix.

Dieudonne et al, however, fails to shows that the controller from one switching node sending a message to another controller specifying a destination and a virtual circuit to go to each destination. Yet, it was known in the art to incorporate method of requesting a path, as shown by **Hiller et al** (see Fig. 15). Such that all participating switching nodes are informed of the connection to route the individual message packets that follow. Thus, it would have been obvious to those of ordinary skill in the art at the time the invention was made to modify the communication system of Dieudonne with the teaching of providing a method of request path as taught by Hiller et al to provides the processes of selecting a path for a communication activating permanent virtual circuits.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Dieudonne et al** (5,793,766) in view of **Suzuki** (U.S. Pat. No.4,884,263)

- Consider claim 1 **Dieudonne** discloses (see Fig. 4 and Fig. 6) a switching node, comprising: a switching matrix (AM), and a controller (CU) to control switching matrix. The controller configured to set up a group of virtual circuits to a respective destination as a virtual circuit bunch (see FIG. 4, FIG. 6)

Dieudonne et al, however, fails to teaches the retransmit digital data from an assigned virtual circuit identifier to an alternate VCI of the same or different port going to the same destination when a cell interleaving problem occurs. **Suzuki** discloses the step of reestablish a

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new virtual circuit through the network in the event of a trouble or heavy traffic in the virtual circuit (see col. 1 line 33 - line 37). Thus, it would have been obvious to those of ordinary skill in the art at the time the invention was made to modify the switching system of **Dieudonne** with the teaching of providing a method of retransmit digital data when a cell interleaving problem occurs taught by **Suzuki** to re-routing the transmission path if a trouble has occurred.

14. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Hiller et al** (5,345,445) in view of **Fisk** (U.S. Pat. No. 5,274,643)

- Consider claim 15, **Hiller et al** discloses a method of allocating virtual circuits as discussed above. **Hiller et al** however, fails to shows a method for specifies the level of service to be provided by one or more virtual circuit. Yet, it has been known in the art to incorporate a method for specifies the level of service as set forth by **Fisk** (see col.5 line 41- line 55) in a method of allocating virtual circuit. Thus, it would have been obvious to those of ordinary skill in the art at the time the invention was made to modify the method of **Hiller et al** with the teaching of providing a level of service as taught by **Fisk** for the improve of its use.

15. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki**. (U.S. Pat. No. 4,884,263)

- Consider claim 23, **Suzuki** shows a method for establishing a virtual circuit from a node of a switching network as a virtual circuit bunch.

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Suzuki, however, fails to shows a computer program product, comprising: a memory medium, and a computer program stored on a memory medium comprising instructions for establishing a plurality of virtual circuits from one node to other node of a switching network as a virtual circuit bunch. Yet, it has been known in the art that a modular switch element is programmable to operate in conjunction with varying number of other modular switch element in a shared memory switch fabric. Thus, it would have been obvious to those of ordinary skill in the art at the time the invention was made to generate a computer program for the operation of the switching system.

-Claims 24-26 are rejected for the same reasons as set forth in claim 23.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pat. No. 5,432,783

Ahmed et al

Date of Patent: Jul. 11, 1995

Pat. No. 5,673,264

Hamaguchi

Date of Patent: Sep. 30, 1997

17. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

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or:

(703) 308-6743, (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to **Brenda Pham** whose telephone number is **(703) 308-
0148**. The examiner can normally be reached on Monday-Thursday from 9:00 AM to
5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, **Chi Pham**, can be reached on **(703) 305-4378**.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the Group receptionist whose telephone number is
(703) 305-4900.

Brenda Pham
April 9, 1999

Brenda H. Pham

Chi H. Pham

CHI H. PHAM
SUPERVISORY PATENT EXAMINER
GROUP 2700

4/9/99